CANCER CONTROL STRATEGIES

The goal of cancer control is to reduce burden, illness, and death from cancer. Strategies proven to be helpful in reaching this goal are: monitoring the burden of cancer **(surveillance)**; avoiding known external (non-genetic) causes of cancer **(prevention)**; identifying tumors at early stages of development, when treatment is more likely to effect a long-term, disease-free state **(screening)**; using state-of-the-art cancer therapies **(treatment)** to control or cure the disease; and assuring effective pain control and other supportive measures **(palliative care)** for those patients who will eventually die of their disease, including supportive services for family care givers. Because different types of cancer vary in the extent to which they may be controlled by prevention, screening, and treatment, comprehensive cancer control embraces all approaches.

Surveillance

Cancer registries at the local, state, and national level collect and analyze data on the diagnosis, stage of disease, treatment, and demographics of cancer patients. (Vermont, HP) Cancer surveillance, the systematic collection, analysis, and interpretation of cancer data, provides the foundation for cancer control. It is an indispensable tool that enables public health professionals to better understand and tackle the cancer burden while advancing clinical, epidemiologic, and health services research. (HP) Surveillance data are "essential for planning and evaluating cancer control programs, allocating preventive and treatment resources, targeting and conducting research, and responding to concerns from citizens about the occurrence of cancer in their communities." (HP)

Prevention

Many cancer deaths could be prevented through lifestyle changes. Some common cancers, such as cancers of the lung, colon-rectum, oral cavity, skin, and cervix are largely preventable by avoiding certain risk factors, such as tobacco use, fatty diet, sedentary lifestyle, chronic alcohol use, exposure to ultraviolet radiation (sunlight), and certain sexually transmitted diseases. More than 180,000 tobacco-related cancer deaths (estimated in 2003) and another estimated 180,000 cancer deaths related to nutrition, physical inactivity, obesity and other lifestyle factors could be prevented through behavioral changes. (ACS Facts 2003)

Screening

Screening involves checking for cancer or cancerous conditions in asymptomatic persons. This is important because screening for some cancers is effective in detecting precancerous cells or finding cancer at an early stage when treatment is more effective. Screening procedures vary for different cancers, and may involve a physical exam, a laboratory test, or procedures such as mammography or colonoscopy that look at an internal organ. (Vermont)

Cancers of certain anatomical sites, accounting for about half of all new cases, may be detected with screening tests. (ACS Facts 2003) Many malignancies of the colon-rectum, female breast, and cervix may be detected and treated early enough to effect a long-term disease-free state, and screening tests for cancers of the prostate, skin, and oral cavity are used inconsistently as their effectiveness is still under debate. The effectiveness of mass screenings for cancers of other sites has not been fully evaluated.

In general, screening works if the disease has a relatively long period of development during which it is susceptible to treatment, if the screening test has high sensitivity and specificity (the ability of the test to identify a high proportion of true positives and true negatives, while avoiding false positives and false negatives), and if the available treatment is effective. If any one of these three elements is missing, screening may not help control the disease.

Treatment

The use of different methods of treatment for cancer, such as surgery, hormone therapy, radiation, chemotherapy, and biologic therapy, is based on a number of factors, including the type of cancer, the stage of the cancer, and the patient's age and general health. (ACS Guide)

The effectiveness of treatment for many types of cancer has advanced significantly over the past two decades. Nonetheless, many cancer patients do not receive state-of-the-art treatment. Were they to do so, it is estimated that the mortality rate from all cancers combined would be reduced about one-fourth. Improving access to state-of-the-art cancer treatment includes interventions for clinical trials, American College of Surgeons (ACOS) approved hospital cancer programs, and American Joint Committee on Cancer (AJCC) staging methodology.

Palliative Care

The goal of palliative care is to relieve suffering and improve quality of life for patients with advanced illness. (Center) Many terminally ill cancer patients in this country still do not receive adequate palliative care. As a result, many experience very poor quality of life at the end of life. Many live and die in pain.

Hospice represents a proven, systematic approach to the provision of palliative care which has been successful in overcoming many existing barriers to effective palliation, especially with regard to the control of cancer pain. Hospice provides a compassionate, team-oriented approach to expert medical care, pain management, and emotional and spiritual support tailored to the needs and wishes of the patient. (Palliative) Unfortunately, only about 40% of terminally ill cancer patients receive hospice care, and many receive it only in the last few weeks of life, after enduring the side effects of misdirected curative treatment and uncontrolled pain.